

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 10/564,164

**AMENDMENTS TO THE DRAWINGS**

Please insert the enclosed replacement formal drawing sheet 1/6 in which the reference number 16 has been corrected to 1b to identify the discharge aperture “formed on a radially-outer side”, as described in the specification at page 4, lines 1 and 2.

Attachment: Replacement Sheet

**REMARKS**

Applicant respectfully **traverses** the rejection of claims 6-10 under 35 U.S.C. § 103(a) as being unpatentable (obvious) over Yoshida '374 in view of Farr '831, or alternatively over Yoshida '374 in view of Quantz '592.

In paragraph 1, bridging pages 2 and 3 of the Office Action, the Examiner presents his summary of Yoshida's disclosure, and then concludes that Yoshida does not disclose the limitation of the "*heat sink is a grounded, electrically-conductive heat sink*".

The Examiner then relies on Farr or Quantz for the very broad teaching of a grounded, electrically-conductive heat sink in a voltage control apparatus.

However, Applicant respectfully notes that there is absolutely no teaching or suggestion in either Farr or Quantz of positioning the grounded heat sink in order to block electromagnetic noise from penetrating through the heat sink to an integrated circuit chip.

Applicant has amended claim 6 to contain the clarifying limitation,

said grounded heat sink being positioned to block  
electromagnetic noise from penetrating through said heat sink to  
said integrated circuit chip.

Farr does not even illustrate a grounded heat sink, and contains only the speculative statement at col. 4, lines 49-53:

...their anodes are both at ground potential and hence can  
be in electrical and thermal contact with a common grounded heat  
sink for maximum heat transfer and circuit simplicity.

Similarly, Quantz also does not illustrate a grounded heat sink, but it also contains at col. 2, lines 15-19, only the speculative statement:

...each of the diodes is connected in a common polarity to the battery, permitting the use of a single grounded heat sink, thus reducing the cost of manufacturing the alternator system.

Thus, it is clear that Yoshida, Farr and Quantz, taken in any combination, do not teach, or even remotely suggest, at least Applicant's claim 6 limitation:

said grounded heat sink being positioned to block electromagnetic noise from penetrating through said heat sink to said integrated circuit chip.

For a valid rejection under 35 U.S.C. §103(a) based on non-patentability (obviousness), the applied references must teach, or at least suggest, **all of the limitations** of the rejected claim(s). Applicant respectfully submits that, as explained above, this is clearly **not** the case here with respect to the independent parent claim 6.

Thus, Applicant respectfully submits that Yoshida/Farr or Yoshida/Quantz is **incapable of rendering obvious** the subject matter of parent claim 6 or any of its dependent claims 7-10, which are patentable at least for the same reasons as described above with respect to the parent claim 6.

In the first two paragraphs on page 3 of the Office Action, the Examiner, in apparent reference to dependent claims 7 and 8, asserts what is "shown" in Figs. 10 and 11, respectively. However, Applicant cannot find in Fig. 10 the "positioning portion" mentioned by the Examiner, and cannot find in Fig. 11 the "blocking portion (24)" as mentioned by the Examiner (the

reference 24 in Fig. 11 of Yoshida refers to a cylindrical capacitor). Clarification of these two paragraphs is respectfully requested.

Applicant notes the Examiner's statements, on page 4, directed specifically to dependent claim 10 (10/9/6). The Examiner admits that the applied prior art does not teach or even suggest the package shape and heat sink shape required by claim 10, but dismisses these limitations with the strictly **conclusory** statement:

...it would be obvious to an artisan with necessary mechanical skills and ordinary knowledge to re-design suitable sizes and shapes of the respective voltage control apparatus; molded package and the grounded heat sink in accordance with space availability with in the alternator, as well as to further enhance heat transfer for the voltage control apparatus. Such modification has been held that a change in size or shape is generally recognized as being within the level of ordinary skill in the art.

In any event, as with the other dependent claims, claim 10 (10/9/6) should be patentable for at least the reasons that its parent claim 6 is patentable.

In summary, then, and for the reasons advanced above, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection under 35 U.S.C. § 103(a) and to find the application to be in condition for allowance with all of the pending claims 6-10; however, if for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is respectfully requested to **call the undersigned attorney** to discuss any unresolved issues and to expedite the disposition of the application.

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Filed concurrently herewith is a Petition (with fee) for an Extension of Time of one month. Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this application, and any required fee for such extension is to be charged to Deposit Account No. 19-4880. The Commissioner is also authorized to charge any additional fees under 37 C.F.R. § 1.16 and/or § 1.17 necessary to keep this application pending in the Patent and Trademark Office or credit any overpayment to said Deposit Account No. 19-4880.\

Respectfully submitted,

/John H. Mion/  
John H. Mion  
Registration No. 18,879

SUGHRUE MION, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, D.C. 20037-3213  
(202) 663-7901

WASHINGTON OFFICE

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